Finding common ground: Towards a global initiative on direct-sowing, mulch-based systems and conservation agriculture (DMC)¹

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A. Title

Finding common ground: Towards a global initiative on direct sowing, mulch-based systems and conservation agriculture.

B. Abstract

During the coming decades, conservation agriculture technologies will be critically important in improving the productivity and sustainability of agroecosystems in developing countries. The DMC initiative features a bottom-up process of learning and synthesis regarding conservation agriculture practices. By analyzing and comparing experiences from decentralized initiatives, by synthesizing and systematizing lessons learned, and by identifying and filling gaps, DMC practices can be harnessed by a wider range of stakeholders. The objective of the initiative is to document case studies, synthesize across cases, identify gaps in knowledge, foster research to fill these gaps, help with institutional strengthening, and foster the multiplication of successful experiences. Early facilitators of the process of building the DMC initiative came from CIRAD and CIMMYT. Numerous additional stakeholders have come on board. Activities on the agreed agenda only await the final appointment of a DMC Facilitator with a modest budget for catalytic activities. As opposed to a centralized program with a block budget, the DMC initiative is a loose federation of institutions and individuals, each deeply committed to DMC practices as a way to foster sustainable improvements in agroecosystem productivity. Members volunteer to take on research questions of importance with an agreed agenda developed by all stakeholders.

C. Project Context

During the coming decades, conservation agriculture technologies will be critically important in improving the productivity and sustainability of agroecosystems in developing countries. Conservation agriculture practices have led to some of the most dramatic transformations of agricultural systems in modern times. And this has occurred in developed as well as developing countries. Finally, the development and adoption of

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these practices are linked with a revitalized rural sector, increased farmer and community capacity for experimentation, and more productive public sector institutions.

Arguably, conservation agriculture practices such as direct sowing, mulch systems, conservation tillage and green manure cover crops offer the best, bright hope for an equitable, sustainable and profitable smallholder agriculture in the developing world. This hope can be achieved more effectively and efficiently if conservation agriculture proponents around the world collaborate and communicate, systematically sharing experiences, methods, insights, and technologies.

The DMC\(^3\) initiative has its roots in these simple insights.

This initiative features a bottom-up process of learning and synthesis. By analyzing and comparing experiences from decentralized initiatives, by synthesizing and systematizing lessons learned, and by identifying and filling gaps, DMC practices can be harnessed by a wider range of stakeholders.

The DMC initiative has a broad developmental goal:

*To help improve food security and alleviate poverty, while conserving natural resources and encouraging more durable forms of agriculture, by fostering broader use of sound agroecosystem management practices, especially those centered on direct sowing, mulch-based systems and conservation tillage.*

In order to achieve this goal, the Global Program on DMC has the following purpose:

*To strengthen the capacity of key stakeholders to develop suitable DMC systems, and to accelerate their widespread adoption.*

The proposed Global Program seeks to meet this purpose by achieving specific objectives:

- Provide a framework for analyzing and comparing stakeholder experiences with DMC systems.
- Synthesize and systematize lessons learned from decentralized initiatives.
- Identify gaps in what is known about developing and fostering the use of DMC systems, and encourage stakeholders to fill these gaps.
- Provide support and feedback to decentralized stakeholder initiatives.
- Foster the multiplication of successful experiences.

In one very important way, however, the DMC initiative is very different from other global partnership programs— it is very new and has so far been unable to undertake specific activities aimed at meeting its objectives. This is because of delays in obtaining staffing (a full time Facilitator) and funding. That is, it does not have a decades-long track record of experience – it is essentially brand new.

\(^3\) In this paper, “conservation agriculture” and “DMC” are sometimes used interchangeably.
**D. History of stakeholder involvement in the area**

GFAR, the Global Forum on Agricultural Research, guided by agreed basic principles, is progressively developing a global system on agricultural research. GFAR Global Programs aim to “pull together and transform decentralized initiatives into global initiatives using a bottom-up approach”. This aim flows directly from two GFAR guiding principles: subsidiarity\(^4\) and additionality\(^5\).

As a first step, five research areas were selected as being of high priority for global cooperation. One of these is Natural Resources Management and Agroecology (NRM/A). The DMC initiative was originally proposed as a GFAR Global Program, within the GFAR NRM/A research area.

To achieve the aim of a Global Program, it is necessary to squarely face the central question of how to use a bottom up approach to pull together and transform numerous decentralized initiatives (in this case, those local initiatives on direct sowing, mulch-based systems and conservation tillage) into a coherent global program.

Early facilitators of the process of building the DMC initiative came from CIRAD and CIMMYT. Both institutions have a very considerable investment in DMC activities; CIRAD in Mali, Madagascar, Vietnam, Laos, Brazil, Mexico and other countries, and CIMMYT in South Asia, the Andean region of South America, and Mesoamerica, including Mexico. In effect, two distinct global networks were in operation. Individuals from the two institutions became aware of the potential advantages of cross-sharing of information and experiences. And, at the same time, they became aware of the GFAR efforts to develop a global system for research.

The decision was taken to call a stakeholder meeting in Paris. The principle objective of this meeting was to develop a proposal for a GFAR global program. The meeting was well-attended, with good representation from NARS, NGOs, international centers, and other institutions. Participants in this meeting are listed in Attachment 1. At that time, the broad framework of the DMC initiative was forged and the proposal to GFAR was prepared (see Attachment 2).

At the GFAR meeting in Dresden of May 2000, the DMC initiative was reviewed with indeterminate results. DMC enthusiasts took the opportunity of the Dresden event to meet informally. They decided to proceed with the initiative, postponing to a later date the issue of formal links with GFAR.

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\(^4\) Research programs may be better managed at a sub-regional or regional level rather than at a global level. Therefore, planned activities should be implemented at the lowest level possible at which they can be executed.

\(^5\) GFAR will only facilitate the emergence of Global Programs when stakeholders perceive the added value of working together at the regional and/or global level.
Subsequent activities have focused around the development of an open Action Group – interested stakeholders who in principle are attracted to the notion of the DMC global program. Contacts have also been made with other global and regional DMC networks, e.g., ISTRO (International Soil Tillage Research Organization), the Rice-Wheat Consortium for the Indo-Gangetic Plains, the African Conservation Tillage Network, the FAO conservation agriculture endeavor, and RELACO, a Latin American conservation agriculture network, among others. These stakeholders have been made aware of the potential advantages of global collaboration on DMC themes and are ready for action as resources permit.

Thus, considerable spadework has been done in cultivating potential DMC initiative stakeholders and clients. Unfortunately, delays in bringing on board a full time DMC Facilitator, with a suitable budget for a catalytic role, has hindered the actual launch of initiative activities. But the objectives and activities that are envisioned for the DMC are precisely those sought for some time by the very stakeholders that form the DMC program!

E. Process and Mechanisms to Formulate and Manage Global Partnership Programs

In addressing these questions of process and mechanisms, the intentions as well as the actions of the DMC initiative will be described.

1. How is the process of mobilizing stakeholders and of putting together and formulating a global programme being managed? This refers to the process that defines the scope and the thematic coverage (or research agenda) of the programme. How are the ideas/proposals from the various stakeholders being articulated into a "structured" global programme?

It is intended that the overall framework and agenda of the DMC initiative be flexible and dynamic, growing and evolving as needed. The initial framework and agenda for the initiative was an outcome of a stakeholder workshop held in Paris in early 2000. The DMC Facilitator will catalyse additional events for further refinement of the agenda. The details of this process have not yet been developed, but they will focus closely on problems and opportunities in fostering more widespread use of DMC practices. What problems need to be solved? How have some decentralized initiatives solved them? What are the most exciting opportunities for adapting and scaling out DMC practices? How can these be harnessed?

Note that, while the DMC program is open to all, it is likely to be most useful to people managing decentralized initiatives or research/development consortia on DMC practices. This program does not intend to duplicate the efforts of the decentralized initiatives themselves. There are many of these, with an existing keen interest to work more closely together!!
2. How is the issue of linking the “local” to the “global” being addressed? How is the link being established between site-specific problem-solving, and the generation of knowledge that is of relevance to farmers/producers elsewhere, and that thus may have a "global relevance"? This puts the emphasis on up-wards and down-ward flows, in view of drawing strategic elements guiding the development of global programmes. The process of going from the local to the global is one of particular interest to the analysis that is being made.

Activities for linking the specific to the global are not yet in train. However, the DMC Facilitator will undoubtedly draw on the emerging literature on “scaling out and scaling up” of INRM practices, as well as on new findings in the area of knowledge management (KM). Knowledge management deals with “what is know”, but also “who knows what, and can it be shared through informal communities of practice?”. At its simplest, key regional network leaders and DMC practitioners will interchange ideas on how important problems were defined and then overcome, making DMC practices more attractive to the farming community. Database management, study tours, communities of practice, and other activities will be required.

Interestingly, the issue of “local” to “general” has already been addressed in some decentralized initiatives – and we can learn from their progress! Finally, DMC stakeholders, among them CIMMYT, CIRAD and ICARDA, have their own experiences in knowledge management and the application at the global level of knowledge generated at the local level.

3. How is the content (i.e. the activities) of the global programme being determined? Is the programme based on a centralized programming effort that leads to a "fully structured programme" (with a central budget), or is the programme based on a “common framework for action”, within which stakeholders carry out a variety of decentralized joint initiatives and collaborative efforts? What are the advantages of one or the other option? Why was the present option chosen?

The DMC initiative will use a common framework for action, with multiple activities by multiple stakeholders. The DMC Facilitator will be a catalyst in fostering useful activities and events for information and knowledge sharing, and for gap filling research on priority topics. A Steering Committee will set the broad directions. The content of the global program can evolve according to stakeholder needs – an advantage of a clear focus to the program.

4. How are the selection/prioritisation criteria of the research proposals chosen and applied? With what results in terms of enhancement of different societal needs/world visions? What negotiation takes place between different “added-value” notions and research objectives? How is the evaluation effort handled?

Research endeavors that are of high priority are those included in the common DMC initiative agenda as agreed by stakeholders. Most research will be self-funded, not with funds from the DMC Facilitation entity. Institutions or local initiatives volunteer
to take on part of the agreed agenda on behalf of the whole group. We envision no common pool of funds available for competitive research grants.

5. Information and knowledge management for increased effectiveness of Global Programmes. Role it plays and approach utilised.

Knowledge management in the broadest sense is the central reason for launching a DMC initiative. Only by tapping into the best experiences, technologies, methods from around the world – including those having to do with community organization or policy research as well as technology development – can DMC proponents swiftly scale out suitable DMC practices in ways that benefit large numbers of farm families over large areas in many countries.

Information sharing by the DMC initiative will be done through the use of fiches, development and application of databases, study tours, and other forms of synthesis and feedback to decentralized initiatives.

The DMC facilitator must be knowledgeable about the unfolding field of knowledge management (see above) and must apply this in his or her catalytic role. Note that one of the activities of the DMC initiative is the extraction and synthesis of lessons learned from decentralized initiatives. This is a highly scientific activity which requires dedicated resources. And it is in the mainstream of information and knowledge management.

6. What funding strategy is utilised for the support of the programme? What is the importance of cost-sharing? Does the programme have a central budget? Or does it have a mechanism for the (i.e. competitive) assigning of financial resources? How are resources allocated (or will be allocated)?

The funding strategy of the initiative is not yet clear. But funding will be required at two levels: funding for the central facilitation function, and funding for program activities. Part of the former will be forthcoming from CIRAD. Part of the latter will be forthcoming from self-funding of activities by participants. However, donor support will be sought to maintain the viability of the facilitation office as well as providing some flexible “catalytic” funds to support information exchange, investments in knowledge management, travelling seminars, gap filling research and other activities. It is anticipated that there will be no large central budget, or a competitive grant facility. DMC initiative participants must see DMC as central to the core of their professional work, and the DMC initiative as a way to improve the efficiency of their own core operations.

7. What are the main management factors that can hinder or increase the effectiveness of Global/Regional Programmes?

Effective facilitation, a reasonable budget for catalytic activities, information management and gap filling research, and governance processes that are credible,
transparent and acceptable to the stakeholders – and continued enthusiasm for sharing of information and experiences on DMC practices – the “common vision” that is all so important.

**F. Conclusions and Lessons Learned**

- Enthusiasm and excitement of stakeholders for the topic.
- Importance of a common vision and keen interest on a theme with a clear focus.
- Adaptive management – flexible agenda that changes over time.
- Knowledge management activities in accord with changing stakeholder needs.
- Program areas largely self-financed – should be no problem if DMC themes really are central to the core interests of stakeholder groups.
- Need for a central Facilitation entity with modest but sustainable funding.
- Acquaintance with the wide range of knowledge management practices that may be applied.
Attachment One

NATURAL RESOURCES MANAGEMENT / AGROECOLOGY WORKSHOP

CIRAD Headquarters, Paris, France

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Executive Summary
This note proposes a GFAR Global Program on Direct Sowing, Mulch-Based Systems and Conservation Tillage (DMC), within the GFAR Natural Resources Management and Agroecology (NRM/A) research area. In many countries, DMC practices have fostered higher productivity, improved resource conservation, lowered food costs for consumers, and improved incomes for producers. The proposed Program features a bottom-up process of learning and synthesis. By analyzing and comparing experiences from decentralized initiatives, by synthesizing and systematizing lessons learned, and by identifying and filling gaps, DMC practices can be harnessed by a wider range of stakeholders. In this note, Proposal goals and objectives are described, activities outlined, key issues introduced, existing local initiatives identified, and a process for moving forward proposed. Finally, new stakeholders are invited to join.

A proposed Global Program
GFAR, the Global Forum on Agricultural Research, guided by agreed basic principles, is progressively developing a global system on agricultural research. GFAR Global Programs aim to “pull together and transform decentralized initiatives into global initiatives using a bottom-up approach”. This aim flows directly from two GFAR guiding principles: subsidiarity\(^7\) and additionality\(^8\).

As a first step, five research areas have been selected as being of high priority for global cooperation. One of these is Natural Resources Management and Agroecology (NRM/A). *This note proposes a GFAR Global Program on direct sowing, mulch-based systems and conservation tillage, within the GFAR NRM/A research area.*

To achieve the aim of a Global Program, it is necessary to squarely face the central question of how to use a bottom-up approach to pull together and transform numerous decentralized initiatives (in this case, those local initiatives on direct sowing, mulch-
based systems and conservation tillage) into a coherent global program. First, the goals and objectives of the proposed Global Program are described, and activities for meeting these goals and objectives are outlined. Then, a brief review is provided of key issues to be addressed. After this, examples are given of local initiatives active in different parts of the world in direct sowing, mulch-based systems and conservation tillage. The participation of these in a bottom-up approach is then discussed and questions of governance and implementation are examined.

**Goal, purpose, and objectives**

The proposed Global Program on direct sowing, mulch-based systems and conservation tillage (GP-DMC) has a broad developmental goal:

*To help improve food security and alleviate poverty, while conserving natural resources and encouraging more durable forms of agriculture, by fostering broader use of sound agroecosystem management practices, especially those centered on direct sowing, mulch-based systems and conservation tillage.*

In order to achieve this goal, the Global Program on DMC has the following purpose:

*To strengthen the capacity of key stakeholders to develop suitable DMC systems, and to accelerate their widespread adoption.*

The proposed Global Program seeks to meet this purpose by achieving specific objectives:

- Provide a framework for analyzing and comparing stakeholder experiences with DMC systems.
- Synthesize and systematize lessons learned from decentralized initiatives.
- Identify gaps in what is known about developing and fostering the use of DMC systems, and encourage stakeholders to fill these gaps.
- Provide support and feedback to decentralized stakeholder initiatives.
- Foster the multiplication of successful experiences.

**Global Program activities**

The objectives of the proposed Global Program call for a global learning process. By analyzing and comparing experiences from decentralized initiatives, by synthesizing and systematizing lessons learned, and by identifying and filling gaps, stakeholders can be more effective. They can more swiftly develop suitable DMC systems, and more effectively encourage their widespread use. In doing so, they can draw on the keys to success, while avoiding known pitfalls.

**Select and characterize decentralized initiatives**

A first set of activities, then, is to select and characterize decentralized initiatives on DMC systems. In other words, the Global Program begins with a bottom up approach. Given the huge number of decentralized initiatives on direct sowing, mulch-based systems and conservation tillage, it may be necessary to develop selection criteria to help decide which initiatives will be emphasized within the Global Program. Clearly, such
selection criteria must take account of the willingness of the decentralized initiative to work with (and learn from) the Global Program, as well as the lessons that may be extracted from it. An initial step, then, may be the development of a full inventory of potential case studies, to which selection criteria may be applied.

**Extract lessons from selected initiatives**

Once decentralized DMC initiatives are chosen that will be emphasized in the Global Program, a framework for analyzing and comparing them needs to be developed. Such a framework will contain the following elements:

- The process of technology generation and adoption followed in the initiative, from the initial conception to the final steps in accelerating adoption.
- Information on the management of the research and development process.
- Information on partnerships, and how these influenced the performance of the initiative.
- Information on the biophysical performance of the technologies developed by the initiative, as related to environment and agroecology.
- Factors governing adoption of the technologies developed by the initiative.
- Selection of criteria that distinguish initiatives with greater success from initiatives with less success.
- For those initiatives judged to be relatively successful, factors explaining “why it worked”.
- For those initiatives judged to be less successful, an analysis of problems that occurred.
- Synthesis of lessons learned, identification of gaps, and filling of these gaps through work to improve research methods and processes.

**Organize, manage and circulate information**

The Global Program proposes to share information on lessons learned on processes of developing and fostering adoption of DMC practices. This will be done through the use of fiches, development and application of databases, utilization of study tours, and other forms of feedback to local DMC initiatives.

Databases may feature the Interdev system promoted by the NGO committee, perhaps combined with the best features of similar systems being developed by other stakeholders. Suitable IPR rules will be needed to protect the rights of those generating data, while making as much as possible available for the common good. Other issues include frequency of updates, responsibilities for database management, staffing and resourcing, mode of database access (e.g., CD vs. net-enabled), and training in data entry, quality control and querying. The use of standardized “fiches” may be a good way to initiate data management efforts. Fiches contain summarized data in standard format for easy access and comparison. They are readily prepared and used even before an electronic database is up and running.

If, however, it is true that the objectives of the proposed Global Program call for a global learning process, and that database management and use may not be enough. At times
there is simply no substitute for personal exchanges and field visits. The Global Program, then, will implement a program of study tours.

Engage in networking
Drawing on the activities described above, the GFAR Global Program on direct sowing, mulch-based systems and conservation tillage will engage in networking activities, including:

• Exchange of experiences.
• Promotion of new DMC initiatives.
• Development of links to other Global Programs and networks with similar interests.
• Identification of training opportunities for the decentralized initiatives.
• Provision of opportunities for documenting and publishing lessons learned on effective and efficient DMC research.

Key issues
As the Global Program on direct sowing, mulch-based systems and conservation tillage engages in the above activities, striving to accomplish its goals, purpose, and objectives, it will need to deal with a number of key issues. These issues are central to the success of DMC practices. Some relate to the plot or farm level, others to the watershed or region. Similarly, some pertain to technology design, others to its attractiveness to farmers, and still others to the consequences of technology adoption.

• **Mechanization**: Widespread adoption of DMC practices often depends on the availability of adequate implements. Lessons from the USA, Brazil and South, Central and West Asia point in this direction. Where implements are not adequate, farmers may be unable to attain good crop establishment. Farmer experimentation with implements, in collaboration with small-scale machinery shops, NGOs and other actors is often necessary.

• **Integrated weed/pest management**: Direct sowing with conservation tillage practices often results in increased weed problems. Ways may need to be found to overcome this. Crop residues may also facilitate pest carryover from one crop to another. Integrated management practices may be required.

• **Substitution of herbicides**: Weed control strategies may need to follow an integrated approach, so as to reduce reliance on herbicides. Shading strategies and crop rotations, combined with reduced soil movement, can have important roles.

• **Role of mulching**: Organic mulches on the soil surface can: slow rainfall run-off, improve soil moisture, reduce erosion, foster improved soil biological activity, improve soil fertility, reduce weed germination, facilitate land preparation, etc. It is important to know which of these are most important in a particular case.

• **Residue/biomass management**: To attain a suitable mulch cover at the onset of sowing, crop residues and other biomass needs to be suitably managed, e.g., reduced burning, reduced incorporation, controlled grazing, etc.

• **Use of local (legume) species**: Green manures for mulch may be drawn from local species, not necessarily from the same restricted set of introduced species.
• *Integration crop-livestock:* DMC systems may be difficult to introduce when there is heavy livestock grazing pressure on crop residues. Fodder crop production may be necessary, or controlled grazing practices introduced at the community level.

• *Germplasm:* Some crop varieties may do better than others when used with DMC practices. Breeders may need to set up programs to develop varieties tailored for use with direct sowing, mulch, or conservation tillage.

• *Use of external inputs:* In some instances, DMC practices may allow external input use to be wholly eliminated. In other instances, it may make sense for these practices to be complemented with judicious applications of inputs. In any event, DMC practices should lead to higher use efficiency of inputs that may be used, in other words, greater productivity with fewer inputs.

• *Recuperation of soil fertility:* Local decentralized initiatives may have long-term as well as near-term objectives. Among longer-term objectives may be found the recuperation of degraded soils.

• *Short- vs. long-term profitability:* As a practical matter, most farm-level decisions are taken on the basis of short-term profitability. DMC practices may need to demonstrate near-term benefits to be attractive to farmers.

• *Constraints to adoption:* Adoption of DMC practices may be constrained by poor access to implements or green manure seeds, inadequate technology performance, subsidies on external inputs, and other factors. These need to be understood.

• *Sociological factors:* Adoption of DMC practices may also be constrained by social factors, e.g., communal grazing of livestock that leaves no organic matter for mulch, or widespread burning that moves from one field to another.

• *Policies:* National, regional, or municipal policies can affect the extent to which DMC practices may be attractive. For example, a municipal prohibition on burning of crop residues may make DMC practices the best option for farmers.

• *Environmental impacts:* The introduction of DMC practices may lead to environmental benefits not taken into account by farmers as they take adoption decisions. Some examples include reduced nitrates in groundwater, reduced nitrous oxide emissions, improved agroecosystem biodiversity, improved carbon sequestration (through higher levels of soil organic matter); reduced soil erosion, improved downstream water quality; etc.

### Some local initiatives

There are many local initiatives currently working on direct sowing, green manures, mulch-based systems and/or conservation tillage. Here are some of them:

• Direct sowing with conservation tillage and mulch in Brazil and other parts of the Southern Cone of South America (numerous stakeholders).

• NGO networks on green manure cover crop use in Central America and Southern Mexico (NGOs, Rockefeller Foundation).

• Direct sowing with conservation tillage and mulch in Mexico (CIRAD, CIMMYT, INIFAP, others).

• Conservation tillage, crop rotations, stubble management, sowing methods and mulch systems in several countries of West Asia and North Africa (ICARDA and NARS from Morocco, Turkey, Syria, Jordan, Iran, etc.).
- Agroforestry examples in **Eastern Africa** (ICRAF, African Highlands Initiative).
- Agroecological soil management and cropping systems in **Madagascar** (CIRAD, TAFA and other local NGOs).
- Intercrops and rotations in **Southern Africa** (e.g., maize - mucuna rotations and maize + pigeon pea intercrops in Malawi, maize – soybean and maize – groundnut rotations in Zimbabwe) (Soil Fertility Network).
- Conservation tillage for soil moisture management in drought-prone areas of **Southern Africa** (Silsoe international, NARS).
- Zero till crop establishment, Chinese Hand Tractor minimum till systems, surface seeding practices, in the **Indo-Gangetic Plains of South Asia** (CIMMYT, the Rice-Wheat Consortium for the Indo-Gangetic Plains).
- Mulch-based systems in **Laos and Vietnam** (CIRAD, IBSRAM, IRRI).
- Many others . . .

**Governance and the Global Program**

The proposed Global Program on direct sowing, mulch-based systems and conservation tillage aims to respect the general principles of GFAR: it will be specifically linked to GFAR; it will be open to all; it will be a framework for collaboration, not an institution in itself; it will require a voluntary action team to further develop and launch the proposal.

Members of the Global Program may extend well beyond those who were able to attend the first “launch” meeting in Paris. Other strategic stakeholders are sought, among them the FAO Conservation Tillage Working Group, the World Bank, the French Ministry for Foreign Affairs, GTZ, ARIs, universities (e.g., Cornell), NARS (e.g., EPAGRI, IAPAR from Brazil), farmers associations, IFDC, etc.

**Stakeholders wishing to join the proposed GP-DMC should contact one of the Executive Committee members noted below.**

Two specific suggestions were made regarding interim membership and representation – specifically, two groups were formed to carry the Program forward. Among other things, these groups will facilitate the development of a more complete proposal in the event that a GP-DMC is endorsed at the GFAR meeting in Dresden (May, 2000).

- An open **Action Group**, comprising CIMMYT (on behalf of the CGIAR system); ICARDA (on behalf of the CWANA region); CIRAD (on behalf of ARIs and Europe); ASPTA (on behalf of NGOs); Madagascar (on behalf of NARS and the regional groupings ASARECA and FARA); and Brazil (on behalf of Latin America). Other members are sought.

- An **Executive Committee** consisting of Henri Rouille d’Orfeuil for CIRAD, Larry Harrington for CIMMYT, and Jean Marc Von der Weid for ASPTA/ Brazil.